Preface

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Continuing a practice begun by the Mathematical Programming Society in 1997, this volume of Mathematical Programming, Series B features papers that derive from plenary and semi-plenary lectures at the 2009 International Symposium on Mathematical Programming, the Symposium's 20th edition held 23–28 August 2009 in Chicago. Invited speakers were chosen by a program committee consisting of John Birge (Chair), Karen Aardal, Michael Ferris, Michel Goemans, Masakazu Kojima, Michael Jünger, Rolf Mhring, Andy Philpott, Claudia Sagastizbal, Steve Wright, and Yinyu Ye.

These articles span the history, state of the art, and future of the field long known as Mathematical Programming and more recently also as Optimization. Richard Cottle's article reviews the first 60 years of ISMP meetings, beginning with the "0th" also held in Chicago. Balas, Fischetti, and Zanette also look back, to a cutting plane procedure first proposed 50 years ago, to derive new methods and insights.

Three research papers address aspects of approximation and uncertainty in a variety of respects. Simai He, Zhening Li, and Shuzhong Zhang consider approximation algorithms for a class of nonconvex optimization problems. Andrzej Ruszcynski addresses

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risk-averse control problems for Markov decision models. Paul Tseng's paper¹ derives error bounds for convex optimization problems with noisy data.

Finally, Jong-Shi Pang examines emerging paradigms of competition, dynamics, and hierarchy in mathematical programming, thus looking toward the future of the field.

¹ Paul Tseng was invited to speak at ISMP 2009. Tragically, Paul went missing on August 13, 2009, while kayaking in China. Fortunately we have the benefit of the manuscript that he had prepared.